

17607

15162

3 Hours / 100 Marks

Seat No.

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- Instructions* – (1) All Questions are *Compulsory*.
(2) Answer each next main Question on a new page.
(3) Figures to the right indicate full marks.
(4) Assume suitable data, if necessary.
(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

- 1. Attempt any FIVE of the following: 20**
- a) Explain the importance of plumbing.
 - b) State any four uses of codes in plumbing.
 - c) Define trap. State its two uses.
 - d) List any four types of valves.
 - e) State the flush volumes of water closet, wash basin, shower and urinal.
 - f) Define suds relief and sub drain.
 - g) Explain grey water and its drainage.
- 2. Attempt any FOUR of the following: 16**
- a) Differentiate between air gap and air break.
 - b) Explain the procedure of smoke test.
 - c) Draw neat sketch of c/s of European type water closet.
 - d) Explain with a neat sketch hydraulic jump in plumbing drainage.
 - e) List any four material used for drainage piping.
 - f) Explain the methods used for protection of drainage pipes.

P.T.O.

- 3. Attempt any FOUR of the following:** **16**
- a) Draw neat sketches of elbow tee, wye and cross fittings.
 - b) State different sources of water.
 - c) Define potable and non-potable water.
 - d) Explain rain water harvesting in plumbing systems.
 - e) Explain cleanout with a neat sketch.
 - f) Define roof drain and leaders.
- 4. Attempt any TWO of the following:** **16**
- a) Explain the significance of co-ordination between different agencies involved in plumbing services. Give two examples.
 - b) Explain with a neat sketch hot and cold water distribution system.
 - c) Explain with a neat sketch one pipe and two pipe systems of building drainage.
- 5. Attempt any TWO of the following:** **16**
- a) State any eight requirements of a good trap.
 - b) Explain venting system in plumbing. State any four types of vents.
 - c) What are the functions of hangers and supports? Draw sketches of any two of its types.
- 6. Attempt any TWO of the following:** **16**
- a) Draw neat sketches of any four types of traps. (c/s with dimensions)
 - b) Explain with neat sketch discharge of fixtures below inverted level.
 - c) Explain reclaimed water. State any four uses of it.
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